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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,706	02/28/2002	Yuqun Zeng	12113/46002	7984
26646	7590	09/09/2004	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			PATEL, ISHWARBHAI B	
			ART UNIT	PAPER NUMBER
			2841	

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,706

Applicant(s)

ZENG, YUQUN

Examiner

Ishwar (I. B.) Patel

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AP

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because:

(a) The figures are improperly cross hatched. All of the parts shown in section, and only those parts, must be cross-hatched. The cross-hatching patterns should be selected from those shown on page 600-114/115 of the MPEP based on the material of the part. See also 37 CFR 1.84(h)(3) and MPEP § 608.02.

(b) Figure 3, shows two areas marked as "A" and "B", but are not described anywhere in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 1 objected to because of the following informalities: "ESD" used first time in the claims should be fully spelled out. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawakami et al. Japanese Patent Publication No. 02-174289.

Regarding claim 1, Kawakami et al., discloses an electrically

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conductive copper trace (2, see figure) provided on base (1), and an insulating layer (4) coated on copper trace (2); wherein a dissipative coating layer (5) is applied on the top of said insulation layer (4).

Regarding claim 4, Kawakami et al., further discloses exposed bonding pad area (3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami et al., as applied to claims 1 and 4 above, and further in view of Remington, US Patent No. 5,350,228.

Regarding claim 2, the applicant is claiming the surface resistivity of said dissipative coating layer ranges about $10^4 - 10^{11} \Omega / \square$.

Kawakami et al., fails disclose the surface resistivity of said dissipative coating layer.

Remington discloses an electrostatic discharge protective coating (figure 2, electrostatic dissipative paint) with a thickness of 0.7 to 0.9 mils (column 4, line 65) and surface resistivity of about $10^6 - 10^{10}$ ohm, (column 4, line 30-40) to have protection against static electricity.

Further, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice. *In re Leshin*, 125 USPQ.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to provide the dissipative coating of Kawakami et al., with a surface resistivity as claimed, as taught by Remington, in order to have desired protection from the static electricity.

Regarding claim 3, the modified structure of Kawakami et al., further discloses a thickness of dissipative coating in the range between 0.7 mils to 0.9 mils, as applied to claim 2 above, which is within the claimed range of 5-100 μm .

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami et al., Japanese Patent Publication No. 02-174289, as applied to claims 1

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and 4 above, and further in view of Annis et al., US Patent No. 5,436,803 and Takami et al., US Patent No. 5,245,613.

Regarding claims 5, the applicant is claiming said dissipative coating applied to all connecting cables of ESD sensitive devices.

Kawakami et al. discloses dissipative layer applied to the circuit patterns, but fails to disclose any cable connected to the board connecting other devices.

Cables connected to a board for various input / out put signal is known in the art. Annis et al., discloses conductive wires connected to a circuit board, see figure 1. Takami et al., discloses cable 17 connected to motherboard.

A person of ordinary skill in the art would recognize the advantage of providing antistatic coating to cable connection to have protection against static electricity during the manufacturing process / assembly or during the use of the device.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to provide connecting cables to the board of Kawakami et al., for input / out put signals of various devices, as taught by Annis et al. and Takami et al. and to coat those cable connections with the dissipative coating, in order to have the protection against static electricity generated during assembly or operation.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Frederickson et al., US Patent No. 5,160,374.

Yang US Patent No. 6,136,734.

Dodsworth US Patent No. 6,459,043


Fahey et al. US Patent No. 6,740,410.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ishwar (I. B.) Patel whose telephone number is (571) 272 1933. The examiner can normally be reached on M-F (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272 1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

I B Patel
Examiner
Art Unit: 2841
September 1, 2004


KAMAND CUNEO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800